



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,803	12/28/2001	Harry P. Finke	28-011564	7934

7590

03/09/2004

John W. McIlvaine  
Webb Ziesenheim Logsdon Orkin & Hanson  
700 Koppers Building  
436 Seventh Avenue  
Pittsburgh, PA 15219

EXAMINER

COCKS, JOSIAH C

ART UNIT	PAPER NUMBER
----------	--------------

3749

DATE MAILED: 03/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/032,803

Applicant(s)

FINKE ET AL.

Examiner

Josiah Cocks

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on amendment filed 12/23/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

1. Receipt of applicant's amendment filed 12/23/03 is acknowledged.

### *Double Patenting*

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-4 and 6-30 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 6,471,508 in view of

Art Unit: 3749

*Kurzinski* (US # 5,145,361) (cited in prior Office Action) and WO 96/09496 (hereinafter *Fujii et al.*) (note: This PCT document is in Japanese. The examiner considers that the US patent 6,027,333 is an equivalent disclosure of WO 96/09496 and is considered a translation of the PCT document. References to Figures, reference characters, and columns appearing below relate to the translated US patent).

The claims 1-22 of US # 6,471,508 include limitations substantially equivalent of claims 1-4 and 6-30 of this application except for the recitation of one (or a plurality) of oxygen lances extending longitudinally within the housing at least partially through the air conduit or that the entire cross sectional area of the air opening is positioned on an opposite side of the burner axis.

*Kurzinski* discloses in Fig. 4 a burner and method in the same field of endeavor as the 6,471,508 patent where an oxygen lance (22) extends in a housing at least partially through an air conduit. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the 6,471,508 patent to include an oxygen lance in an air conduit such as in *Kurzinski* as the oxygen lance desirably aids in aspirating a flow of ambient air into the burner to obtain a desired oxygen-air-fuel ratio (see *Kurzinski*, col. 6, lines 16-49). The use of oxygen in a burner is desirable in producing a high temperature flame but as oxygen is expensive is desirable to include air supplemented with oxygen from an oxygen lance (see *Kurzinski*, col. 1, lines 35-37 and col. 2, lines 25-33). In regard to the limitations of a plurality of oxygen lances, to have selected a plurality is simply a matter of duplicating the known oxygen lance (22) of *Kurzinski* and is not regarded as patentably distinct (see MPEP § 2144.04 (VI)(B)).

Art Unit: 3749

*Fujii et al.* teaches a burner and method in the same field of endeavor as the 6,471,508 patent wherein in Fig. 15 (and Fig. 27) of *Fujii et al.* is shown the use of a baffle plate defining an air conduit (33) and a fuel conduit (15c) wherein the air conduit is in the form of a segment of a circle with its entire cross sectional area is on the opposite side of a central axis of the baffle plate. Figures 25A-25F also show baffle plates with air conduits arranged to have their entire cross sectional areas on one side of a central axis. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the claims of the 6,471,508 patent to include the air conduit shape and arrangement of *Fujii et al.* as they contribute to NOx suppression (see *Fujii et al.*, col. 18, line 57 through col. 19, lines 19)

#### ***Allowable Subject Matter***

4. Claims 1-4 and 6-30 will be allowed upon the filing of a terminal disclaimer.

#### ***Conclusion***

5. This action is made non-final. A THREE month shortened statutory period for reply has been set. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) months from the mailing date of this communication.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Josiah Cocks whose telephone number is


Art Unit: 3749

(703) 305-0450. The examiner can normally be reached on weekdays from 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus, can be reached at (703) 308-1935. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

jcc  
March 3, 2004

  
JOSIAH COCKS  
PATENT EXAMINER  
ART UNIT 3749